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Project Charter
CEEN 4960
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MEMBER DEFINITIONS, DELIVERABLES, and QUALITY OBJECTIVES

Resource Manager

Tasked with collaboration management, this person will also be charged with intellectual property management in solidification of ideas and iterative verification of project objectives. The resource manager will be involved with all phases of design in order to better assure both long and short term goals are met with efficiency.

Systems Engineer

For this particular excursion, the Systems Engineer will be in charge of both mechanical systems and component interface throughout various aspects of the project. They will work with the Hardware and Software Engineers in order to best meet the objectives as outlined by the Resource Manager.

Hardware Development Engineer

In delivering concrete platforms on which to work, the Hardware Development Engineer will be in charge of the layout, design, and testing of the electrical systems required for this project. Their work should be focused in simplicity and robustness, so as to aid troubleshooting when compounded with software elements.

Software Development Engineer

Responsible for much of the higher level functionality of the project, the Software Development Engineer will interface the hardware and end-user experience. This individual's primary concerns should be with the production of clean, modular code that can be adapted where hardware changes might prove prohibitive.

RESOURCE NEEDS

Due to the physical nature of the project to be outlined in future documentation, the persons involved will require a sizeable amount of work space in which to collaborate and build their final product. Electronic hardware production facilities, and moderately advanced computer aided design tools will also assist in this effort, as well as wood and metal shop space. Required monetary resources should not exceed \$5000.

RISK MANAGEMENT

In order to best reduce the potential for failure in this sizable undertaking, careful planning will decide each goal, and the steps to be taken should it fail to be met. Multiple solutions will be designed for each component; not only to ensure a fair basis for comparison, but to have a prepared secondary course of action on which to fall back. In this manner, a fully functional deliverable should result by the given deadline, regardless of obstacles yet to be encountered. The analytic hierarchy process will serve to define risks and challenges according to the weight of impact upon the groups limited resources, so as to allocate where time be spent.

PROJECT CONTROL

With the acknowledgement that Gant charts detailing efforts on an hourly basis are used loosely at best, this project will focus on the punctual production of functional deliverables at set deadlines. In this way, the Resource Manager will be able to concretely monitor project status, and inform members of changes in course as they become necessary. Additionally, group members should stay attuned to the design phase in which their peers are currently operating, and provide proactive feedback to maintain the projects current heading as each sees fit.